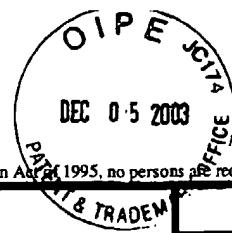


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of

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Application Number	09/883,033
Filing Date	June 15, 2001
First Named Inventor	Jean-Pierre Sommadossi <i>et al.</i>
Group Art Unit	1623
Examiner Name	Howard V. Owens, Jr.
Attorney Docket Number	06171.105026 (IDX 1005 US)

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages/Relevant Figures Appear
		Number	Kind Code ² (if known)			
HP	AA	5,470,838		von Borstel et al.	11-28-1995	
HP	AB	5,736,531		von Borstel et al.	04-07-1998	
HP	AC	5,968,914		von Borstel et al.	10-19-1999	
HP	AD	6,020,322		von Borstel et al.	02-01-2000	
HP	AE	6,258,795		von Borstel et al.	07-10-2001	
HP	AF	6,397,222		von Borstel et al.	10-02-2001	DUPLICATE

FOREIGN PATENT DOCUMENTS

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		Office ³	Number	Kind Code ² (if known)				
HP	AG	WO	89/03838	A1	PRO-NEURON, INC.	05-05-1989		
HP	AH	WO	93/01202	A1	PRO-NEURON, INC.	01-21-1993		
HP	AI	WO	94/26761	A1	PRO-NEURON, INC.	11-24-1994		

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

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Examiner Signature		Date Considered	9-4-04
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Sheet	1	of	9	Attorney Docket Number	06171.105026 (IDX 1005 US)
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Application Number	09/883,033
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		4,916,122		Chu	04-10-1990	
		4,957,924		Beauchamp	09-18-1990	
		5,149,794		Yatvin et al	09-22-1992	
		5,190,926		Chu	03-02-1993	33
		5,194,654		Hostetler et al.	03-16-1993	0
		5,223,263		Hostetler et al.	06-29-1993	11
		5,256,641		Yatvin et al	10-01-2693	33
		5,411,947		Hostetler et al.	05-02-1995	
		5,463,092		Hostetler et al.	10-31-1995	
		5,539,116		Liotta	07-23-1996	12
		5,543,389		Yatvin et al	08-06-1996	0
		5,543,390		Yatvin et al	08-06-1996	
		5,543,391		Yatvin et al	08-06-1996	
		5,554,728		Basava et al.	09-10-1996	
		5,559,101		Weis et al.	09-24-1996	
		5,565,438		Chu	10-15-1996	
		5,567,688		Chu	10-22-1996	
		5,587,362		Chu	12-24-1996	
		5,939,402		Weis et al.	08-17-1999	
		6,025,335		Weis et al.	02-15-2000	
		6,194,391		Schinazi et al.	02-27-2001	
		6,245,749		Schinazi et al.	06-12-2001	
✓ H.O.		6,297,222	B1	von Borstel et al.	10-02-2001	

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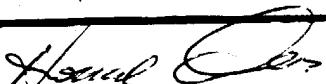
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Sheet 2 of 9

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First Named Inventor	Jean-Pierre Sommadossi <i>et al.</i>		
Group Art Unit	1623		
Examiner Name	Howard V. Owens, Jr.		
Attorney Docket Number	06171.105026 (IDX 1005 US)		

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		WO	89/02733		University of California	04-06-1989	
		WO	89/03838	A1	Pro-neuron, Inc.	05-05-1989	
		WO	90/00555		Vical, Inc.	01-25-1990	
		WO	91/16920		Vical, Inc.	11-14-1991	
		WO	91/18914		Vical, Inc.	12-12-1991	
		WO	91/19721		Glazier	12-26-1991	
		WO	92/01138		Yatvin	01-20-1994	
		WO	92/08727				
		WO	92/15308		Wellcome	09-17-1992	
		WO	92/18517		Yale et al.	10-29-1992	
		WO	93/00910		Vical, Inc.	01-21-1993	
		WO	94/20523		Burroughs Wellcome	09-15-1994	
		WO	94/26273		Hostettler	11-24-1994	
		WO	94/29331		Sloan-Kettering Inst. for Cancer Research	12-22-1994	
		WO	95/07086				
		WO	96/11204		Matthes & Von Jenta-Lipinski	04-18-1996	
		WO	96/13512		Genencor	05-09-1996	
		WO	96/15132		University of California	05-23-1996	
		WO	96/40164		Emory University	12-19-1996	
		WO	98/15563		Pankiewicz, K.W. et al	10-09-1997	
		EP	0 355 131	B1	Pro-neuron, Inc.	09-04-1996	
		EP	0 352 248		Medivir Aktiebolag	01-24-1990	
		EP	0 350 287		Vical, Inc.	02-10-1990	

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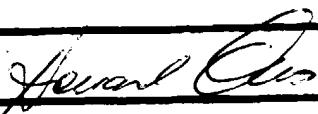
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XO		Office ² Number Kind Code ³ (if known)				
XO		EP 0 494 119	BioChem Pharma	07-08-1992		
		JP 06-293645	Saneyoshi et al.	10-21-1994		

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

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XO		ARNER and ERIKSSON, "Mammalian Deoxyribonucleoside Kinases," <u>Pharm. Ther.</u> , 1995, 67(2), 155-186.	
		BERK et al., "A Genetically Distinct Tymidine Kinase in Mammalian Mitochondria," <u>J Biol Chem.</u> 1973, 248, 2722-2729.	
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		BRIDGES et al., "Characterization of a dCTP Transport Activity Reconstituted from Human Mitochondria," <u>J. Biol. Chem.</u> February 19, 1999, 274(8), 4620-4625.	
		BRIDGES et al., "Identification of a novel mitochondrial dNTP carrier and its interaction with anti-HIV nucleoside analogs," <u>Proc. Am. Assoc. Cancer Res.</u> , March 1997, 38, 414.	
		BRIDGES et al., "Inhibition of Mammalian DNA Polymerase-Associated 3' to 5' Exonuclease Activity by 5'-Monophosphates of 3'-Azido-3'-Deoxythymine and 3'-Amino-3'-Deoxythymidine," <u>Biochemical Pharmacology</u> , 1993, 45(8), 1571-1576.	
		BRYANT et al., "Antiviral L-Nucleosides Specific for Hepatitis B Virus Infection," <u>Antimicrobial Agents and Chemotherapy</u> , 45(1), 229-235 (January 2001).	
XO		CHANG et al., "Biochemical Pharmacology of (+)- and (-)-2',3'-Dideoxy-3'-thiacytidine as Anti-hepatitis B Virus Agents," <u>J Biol Chem.</u> November 5, 1992, 267(31), 22414-22420.	

Examiner Signature		Date Considered	9-4-01
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Sheet	4	of	9	Attorney Docket Number	06171.105026 (IDX 1005 US)
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Application Number	09/883,033
Filing Date	June 15, 2001
First Named Inventor	Jean-Pierre Sommadossi <i>et al.</i>
Group Art Unit	1623
Examiner Name	Howard V. Owens, Jr.

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<i>HZ</i>		CHANG, et al., "Deoxycytidine Deaminase-resistant Stereoisomer is the Active Form of (-)-2',3'-thiacytidine in the Inhibition of Hepatitis B Virus Replication," <i>Journal of Biological Chemistry</i> , Volume 267(20), 13938-13942 (July 15, 1992).	
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		CHEN et al., "Delayed Cytotoxicity and Selective Loss of Mitochondrial DNA in Cells Treated with the Anti-human Immunodeficiency Virus Compound 2',3'-Dideoxycytidine," <i>J Biol Chem</i> , 1989, 264, 11934-11937.	
		CHEN et al., "The Role of Cytoplasmic Deoxycytidine Kinase in the Mitochondrial Effects of the Anti-human Immunodeficiency Virus Compound 2',3'-Dideoxycytidine," <i>J Biol Chem</i> , February 15, 1992, 267(5), 2856-2859.	
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		DOONG et al., "Inhibition of the replication of hepatitis B virus in vitro by 2',3'-dideoxy-3'-thiacytidine and related analogues," <i>Proc. Natl. Acad. Sci.</i> , October 1991, 88, 8495-8499.	
<i>HO</i>		DU et al., Synthesis, "Anti-Human Immunodeficiency Virus and Anti-Hepatitis B Virus Activities of Novel Oxaselenolane Nucleosides," <i>J. of Med. Chem.</i> , (40)19, 2991-2993 (September 12, 1997).	

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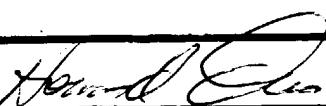
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XO		DUTSCHMAN et al., "Metabolism of 2',3'-dideoxy-2',3'-didehydro-β-L-(-)-5-Fluorocytidine and Its Activity in Combination with Clinically Approved Anti-Humna Immunodeficiency Virus β-D-(+) Nucleoside Analogs In Vitro," <i>Antimicrobial Agents and Chemotherapy</i> , July 1998, 42(7), 1799-1804.	
		FURMAN, et al., "The Anti-Hepatitis B Virus Activities, Cytotoxicities, and Anabolic Profiles of the (-) and (+) Enantiomers of cis-5-Fluoro-1-[2-(Hydroxymethyl)-1,3-oxathiolane-5-yl]-Cytosine" <i>Antimicrobial Agents and Chemootherapy</i> , 36(12) 2686-2692 (December 1992).	
		GLONEK, et al. "Full anhydridization of methylenediphosphonic acid and of phosphoric acids by a carbodiimide" <i>Inorg. Chem.</i> , 1975 Vol. 14 (7); 1597-602.	
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		HERNANDEZ-SANTIAGO et al., "Pharmacology of β-L-Thymidine and β-L-2'-Deoxycytidine in HepG2 Cell and Primary Human Hepatocytes: Relevance to Chemotherapeutic Efficacy against Hepatitis B Virus," <i>Antimicrobial Agents and Chemotherapy</i> , June 2002, 46(6), 1728-1733.	
		HOARD, et al., "Conversion of Mono- and Oligodeoxyribonucleotides to 5'-Triphosphates," <i>J. Am. Chem. Soc.</i> , 87(8), 1785-1788 (1965).	
		HOLY. "Nucleic Acid Components and Their Analogs. CLIII. Preparation of 2'-deoxy-L-Ribonucleosides of the Pyrimidine Series," <i>Collect. Czech. Chem. Commun.</i> (1972), 37(12), 4072-87.	
		HOSTETLER, K.Y., et al. "Greatly Enhanced Inhibition Of Human Immunodeficiency Virus Type 1 Replication In CEM And HT4-6C Cells By 3'-Deoxythymidine Diphosphate Dimyristoylglycerol, A Lipid Prodrug Of 3'-Deoxythymidine." (September 1992) <i>Antimicrob Agents Chemother.</i> 36:2025-2029.	
		HOSTETLER, K.Y., et al. "Synthesis And Antiretroviral Activity Of Phospholipid Analogs Of Azidothymidine And Other Antiviral Nucleosides." (April 15, 1990) <i>J. Biol. Chem.</i> 265(11):6112-7.	
		IMAI et al., "Studies on Phosphorylation. IV. Selective Phosphorylation of the Primary Hydroxyl Group in Nucleosides." <i>J. Org. Chem.</i> , 34(6), 1547-1550 (June 1969).	
XO		JONES, R. et al., "Mini Review: Nucleotide prodrugs," <i>Antiviral Research</i> , 27, 1-17 (1995).	

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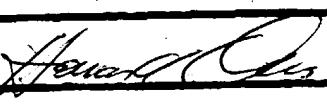
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HO		JUROVČIK and HOLY "Metabolism of pyrimidine L-nucleosides," <i>Nucleic Acids Research</i> , August 1976, 3(8), 2143-2153.
HO		KORBA et al., "A cell culture assay for compounds which inhibit hepatitis B virus replication," <i>Antiviral Res.</i> , 15:217 (1991).
HO		KRAYEVSKY and CHERNOV, "Can a Substrate Enantiomer Be a Substrate for the Same Enzyme?", <i>Molecular Biology</i> , 1996, 30(5), 585-591. <i>NOT SUBMITTED</i>
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SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application Number	09/883,033
(use as many sheets as necessary)				Filing Date	June 15, 2001
Sheet	7	of	9	First Named Inventor	Jean-Pierre Sommadossi <i>et al.</i>
				Group Art Unit	1623
				Examiner Name	Howard V. Owens, Jr.
				Attorney Docket Number	06171.105026 (IDX 1005 US)

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Examiner Signature	<i>Howard V. Owens</i>	Date Considered	8-4-01
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Sheet 8 of 9

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Application Number	09/883,033
Filing Date	June 15, 2001
First Named Inventor	Jean-Pierre Sommadossi <i>et al.</i>
Group Art Unit	1623
Examiner Name	Howard V. Owens, Jr.
Attorney Docket Number	06171.105026 (IDX 1005 US)

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HO		ZHU et al., "Anti-Hepatitis B Virus Activity and Metabolism of 2',3'-dideoxy-2',3'-didehydro-β-L-(-)-5-Fluorocytidine," <i>Antimicrobial Agents and Chemotherapy</i> , July 1998, 42(7), 1805-1810.	
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